

AUTHOR KOZLOV, V.P., and TOKAREV, L.V., ~~PROCESSED~~

TITLE Geochemical Characteristics of Organic Substances and bitumens  
Dispersed in the Deposits of Coal Measures of the lower Carboniferous of the Kuyibyshev Near-Volga Region. 20-242/67  
(Geokhimicheskaya kharakteristika organicheskogo veshchestva i bitumov, rasseyannykh v otlozeniyakh uglenosnogo gorizonta nizhnego karbona Kuybyshevskogo Povolzhya - Russian)

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 2, pp 391-394, (U.S.S.R.)  
Received 6/1957 Reviewed 7/1957

ABSTRACT The deposits of coal measures of the (Stalinogorsk) lower Carboniferous within the conventional limits of limestones with a Turney-fauna up to the bottom of the first intermediate layer from below of the limestone with a tula-fauna are on the whole formed by terrigenous rock. The thickness of the horizon fluctuates up to some 300-400 m. In the east of the area it has its greatest thickness and is divided into layers: 1. a chiefly loamy lower on which developed in a bay filled with fresh water at times, 2. an essentially sand upper one which in its lower part developed under different conditions: from a bay filled with fresh water to continuous sea-coast marshes. Its upper part was mainly formed by mainland accumulations: by lakes, swamps and rivers, and possibly also by their deltas. In the present paper the organic substances and bitumens of these layers are investigated from a geochemical point of view.

Card 1/3

Geochemical Characteristics of Organic Substances ~~SECRET~~  
and Bitumens Dispersed in the Deposits of Coal Measures of the  
lower Carboniferous of the Kytyshev Near-Volga Region. 20-2-42/67

Results show that also those rock varieties at which macroscopically no coal is noticeable have an increased content of organic carbon. The content of free bitumen A and the total content of bitumen (A + C) generally falls from limestone in the direction of loam and further - coal, that is with increasing quantity of the organic matter. The content of the undissoluble organic residual matter is high and increases from the aleurolites into the direction of coal. If the content of Bitumen is related to the quantity of rock (schedule 1) a different graph comes out. The yield of the chloroform-extraction of the free bitumen A generally grows with the increase of the coal-organic substance in the rock. Elementary analysis shows that extractions even from a highly carbonaceous rock are reduced to the highest extent. This relatively also concerns bitumen C. The combination of components of the A-extraction shows that the bitumen from loam and argillitene as well as from the highly carbonaceous aleurolitene is relatively more reduced than that from slightly carbonaceous aleurolitene, carbonaceous slates and coals. Thus, the chloroform-extraction of the bitumen in coal and carbonaceous slates according to its elementary

Card 2/3

Geochemical Characteristics of Organic Substances ~~XXXXXX/33~~  
and Bitumens Dispersed in the Deposits of Coal Measures of the lo-  
wer Carboniferous of the Kyibyshev Near-Volga Region. 20-2-42/67

composition belongs to the most reduced ones, whereas, according to the component composition, it belongs to the least reduced ones. On the other hand in the carbonaceous loam and argillitene the opposite is found. The oils originating from the least carbonaceous rocks are the most reduced. The elementary composition of the benzol-resins, from the chloroform-extract fluctuates in the case of single sorts of rocks even less that of the oils. The chloroform-extractions gravitate according to their elementary composition mostly towards the lines of the coal bitumens (ill.1). Thus it can be presumed that these substances approach the bitumens of the coal series. From the diagram (ill.2) it is obviously that the main part of coals and aleurolite bitumens are farthest distant from those of the mineral oil. Considering the paleogeographical situation and the above described properties of bitumen it can be concluded that if a mineral development here took place at all, it can only have been to a very limited extent. (2 ill., 3 citations from publications)

ASSOCIATION  
PRESENTED BY  
SUBMITTED  
AVAILABLE  
Card 3/3

Allunion Scientific Geological Research Institute for Mineral Oil,  
STRAKHOV, N.M., Member of the Akademy.  
22.10.1956  
Library of Congress  
Moscow

**"APPROVED FOR RELEASE: 07/16/2001**

**CIA-RDP86-00513R001756020006-4**

**APPROVED FOR RELEASE: 07/16/2001**

**CIA-RDP86-00513R001756020006-4"**

TOKAREV, Lev Vladimirovich. Cand Geol-Min Sci -- "Study of the coal-bearing carbon stratum of the Kuybyshev Volga region in connection with its petroleum-bearing <sup>property</sup> ~~quality~~." Mos, 1961 (Min of Geol and Mineral Conservation USSR. All-Union Sci Res Geol Prospecting <sup>Petroleum</sup> Inst "VNIGNI"). (KL, 4-61, 190)

**"APPROVED FOR RELEASE: 07/16/2001**

**CIA-RDP86-00513R001756020006-4**

**APPROVED FOR RELEASE: 07/16/2001**

**CIA-RDP86-00513R001756020006-4"**

GLADYSHEVA, G.A.; KOZLOV, V.P.; TOKAREV, L.V.; GULYAYEVA, L.A., red.;  
KULYANINA, T.A., vedushchiy red.

[Studies on the geochemistry of organic matter in coal-bearing  
deposits of the lower Carboniferous in the Perm area of the Kama  
Valley with reference to petroleum genesis] Opyt izucheniia  
geokhimii organicheskogo veshchestva uglenosnykh otlozhenii nizhnego  
karbona Permskogo Priam'ia v sviazi s genezisom nefli. Moskva,  
Gos.nauchno-issl.in-t nauchn.i tekhn.informatsii, 1959. 59 p.  
(Perm Province--Petroleum geology) (MIRA 13:9)

TOKAREV, L.V.

Genesis of oil in the Kuybyshev upper Carboniferous coal formation in the Volga Valley. Trudy VNIIGAZ no.4:65-77 ' 58.  
(MIRA 11:12)

(Volga Valley--Petroleum geology)



KOZLOV, V.P.; TOKAREV, L.V.

Genetic classification of caustobiolites. Neft.khoz.33 [i.e.34]  
no.9:44-47 S '56. (Caustobiolites) (MIRA 9:10)

KOZLOV, V.P.; TOREKIN, L.V.

Gas distribution in sedimentary formations exemplified by the studies  
in the Donets basin. *Sov. Geol.* 4 no.7:19-33 JI '61.

(MIA 14:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy ~~institute~~ prirodnogo  
gaza.

(Donets Basin--Gas natural, Geology)

TOKAREV, M., tekhnoruk

At the lowest cost. Prom.koop. 13 no.11:24 B '59.  
(MIRA 13:3)

1. Artel' "Galantereya," L'vov.  
(L'vov--Plastics industry)

BALOGHENOK, P., mayor; TOKAREV, E., podpolkovnik yustitsii

In distant units. Komm. Vooruzh. Sil 46 no.15:52-54 Iz 164.  
(Klpa 1819)

TOKAREV, M.: Podpolkovnik yustitsii

So that there should be no "indivisible ones." Kozm. Vozruch.  
S11 46 no.15:54 55 Ag '65. (MIRA 18:9)

VYSOKCOV, N.V.; DOVGELI, B.A.; LEONOV, I.Ye.; POPOV, N.M., red.;  
TOKAREV, M., red.

[Planning state farm production and financial operations] Planirovanie proizvodstvenno-finansovoi deiatel'nosti sovkhoza. Izd. 2. Moskva, Vses.zaochnye uchetnye kursy (VZUK). No.1. [Planning state farm production (lectures three-six)] Planirovanie proizvodstva v sovkhovakh (leksiia tret'ia-shestaia). 1960. 63 p. (MIRA 15:1)

(State farms--Finance)

TOKAREV, M.

Erecting frameless large panel apartment house. Stroitel'2 no.6:6-7  
Ja '56.

(MIRA 10:1)

(Apartment houses) (Precast concrete construction)

~~TOKAREV, Mikhail Fedorovich, polkovnik;~~ LEVIN, M.V., polkovnik, red.;  
GAVRILOVA, A.M., tekhn.red.

[Soldier-builders] Voennye stroiteli. Moskva, Voen.izd-vo  
M-va obor. SSSR, 1958. 95 p. (MIRA 11:12)  
(Construction industry)



RYABOV, Vasilii Sergeyevich; TOKAREV, M.F., polkovnik, red.;  
KUZ'MIN, I.F., tekhn.red.

[Soldier and citizen] Voin-grazhdanin. Moskva, Voen.izd-vo  
M-va obor.SSSR, 1959. 63 p. (MIRA 12:7)  
(Soldiers--Civil status) (Russia--Politics and government)

VAZHIN, Fedor Afanas'yevich, podpolkovnik, voyennyy zhurnalist;  
TOKAREV, M.F., polkovnik, red.; ANIKINA, R.F., tekhn.red.

[Aviation in combat] Aviatsiia v boiu. Moskva, Voen.izd-vo  
M-va obor.SSSR, 1959. 74 p. (MIRA 13:1)  
(Russia--Air force) (Air warfare)

BORISOGLEBSKIY, Viktor Valer'yanovich, general-mayor yustitsii;  
TOKAREV, M.F., polkovnik, red.; KUZ'MIN, I.F., tekhn.red.

[Maintaining military discipline] Na strazhe voinskogo  
poriadka. Moskva, Voen.izd-vo M-va obor.SSSR, 1959. 78 p.  
(MIRA 12:12)

1. Predsedatel' Voennoy kollegii Verkhovnogo suda SSSR (for  
Borisoglevskiy).  
(Military discipline)

MARINTSEV, Petr Fedorovich, polkovnik; TOKAREV, M.F., red.; KRASAVINA,  
A.M., tekhn.red.

[The infantry on the offensive] Pekhota v nastuplenii. Moskva,  
Voen.izd-vo M-va obor.SSSR, 1960. 78 p. (MIRA 13:9)  
(Infantry drill and tactics)  
(Attack and defense (Military science))

DERKACHENKO, Ivan Grigor'yevich, polkovnik v otstavke; TOKAREV, M.F.,  
polkovnik, red.; BUKOVSKAYA, N.A., tekhn.red.

[Military drivers] Voennye voditeli. Moskva, Voen.izd-vo  
M-va obor.SSSR, 1960. 99 p. (MIRA 13:10)  
(Transportation, Military)

MIKHEYEV, Yu.A.; TOKAREV, M.F.

Equipment for "small" motion-picture studios. Tekh.kino i telev.  
4 no.9:43-44 S '60. (MIRA 13:9)  
(Motion-picture studios--Equipment and supplies)

MARTYNOV, M.L., inzh.; Prinimali uchastiye: BUDILENKO, L.F.; TOKAREV, M.N.;  
SHAMIN, V.P.; DOBROVA, M.A.

Automatic control of water boilers. Ispol'. gaza v nar. khoz.  
no.2:226-230 '63. (MIRA 18:9)

1. Otdel konstruirovaniya sredstv mekhanizatsii i avtomatiki  
Saratovskogo gosudarstvennogo nauchno-issledovatel'skogo i  
proyektnogo instituta po ispol'zovaniyu gaza v narodnom  
khozyaystve.

TOKAREV, MIKHAIL SERGEEVICH

N/5  
611.551  
.T6

Mnozhitel'nyye tablitsy dlya ischisleniya ob'yemov kruglykh le nykh materialov po GOST 2708-44 (Factor tables for the computation of the volume of circular timber materials according to GOST 2708-44) Moskva, Goslesbumizdat, 1955.  
413 p. tables.



TOKAREV, Mikhail Sergeyevich; MAKHNEV, N.A., red.; KIMMEL', L.S.,  
red. izd-va; BACHURINA, A.M., tekhn. red.

[Multiplication tables for calculating the volumes of round  
lumber in accordance with the All-Union State Standard 2708-44]  
Mnozhitel'nye tablitsy dlia ischisleniia ob'emov kruglykh les-  
nykh materialov po GOST 2708-44. Izd.5. Moskva, Goslesbum-  
izdat, 1961. 413 p. (MIRA 16:7)  
(Lumbering--Tables and ready-reckoners)

TOKAREV, Mikhail Sergeyevich

[Multiplication tables for the computation of the volume  
of round timber in accordance with State Standard 2708-44]  
Mnozhitel'nye tablitsy dlia ischisleniia ob'emov kruglykh  
lesnykh materialov po GOST 2708-44. Izd.6. Moskva, Lesnaia  
promyshlennost', 1965. 413 p. (MIRA 18:12)

TRIFONOV-YAKOVLEV, D. A., inzh.; AMATOV, N. N., kand. tekhn. nauk;  
TOKAREV, M. V., inzh.

Testing of an experimental soil packing machine with pneumatic-  
impulse action. Energ. stroi. no. 16:27-32 '60. (MIRA 16:12)

1. Moskovskiy filial Vsesoyuznogo instituta po proyektirovaniyu  
organizatsiy energeticheskogo stroitel'stva.

AMATOV, N.N., kand.tekhn.nauk; TOKAREV, M.V., inzh.

New design of buckets for transporting concrete mixtures. Energ.  
stroitel'stvo no.16:50-54 '60. (MIRA 16:12)

1. Moskovskiy filial Vsesoyuznogo instituta po proyektirovaniyu organizatsiy energeticheskogo stroitel'stva.

ТОКАРЕВ, М.В.

АМАТОВ, Н.Н., канд.техн.наук; ТОКАРЕВ, М.В., инж.

The unloading and transportation of cement at the Stalingrad  
Hydroelectric Power Station. Mekh.trud.rab. 11 no.7:6-11 J1 '57.  
(MIRA 10:11)

(Stalingrad hydroelectric power station) (Cement)

GRODZOVSKIY, G.L.; KUZNETSOV, Yu.Ye.; TOKAREV, M.V.

Approximate calculation of axisymmetric supersonic flows under  
internal problem conditions. Prom.aerodin. no.24:152-157 '62.

(MIRA 16:7)

(Aerodynamics, Supersonic)

TOKAREV, N. (g. Dzhambul)

People fight the elements. Pozh.delo 4 no.10:18 0 '58.  
(MIRA 11:11)

(Fire extinction)

TOKAREV, N.A.

The KHU mounted universal stack carrier. Bul.tekh.-ekon.inform.  
no.9:61-62 '60. (MIRA 13:10)  
(Agricultural machinery)



1ST AND 2ND CHOICES																										3RD AND 4TH CHOICES																									
1ST AND 2ND CHOICES													3RD AND 4TH CHOICES													5TH AND 6TH CHOICES																									
Inflammability of ammonia in the presence and absence of a catalyst. N. Abeshau, N. Tokarev and N. Nekrasov. <i>Acta Physicochim. U. R. S. S. T.</i> 401-20(1935)(in German).--Various $\text{NH}_3\text{-O}_2$ mixts. were tested for inflammability by an elec-spark discharge of 2000 v. between Fe and Pt wires. Inflammation was obtained at 20° at pressures over 350 mm. and at 450° at pressures as low as 180 mm. at 13% $\text{NH}_3$ . A series of curves gives the region of inflammation as a function of pressure and $\text{NH}_3$ content for various temps. It was not possible to induce explosion in an air- $\text{NH}_3$ (10 and 21%) mixt. below 400° by means of a Pt netting heated to 800°, while strong reaction takes place on the netting. On previous poisoning of the netting it was possible to obtain an explosion. It tends strongly to cause explosions but $\text{H}_2\text{O}$ vapors strongly repress it. The probable mechanism of ammonia oxidation is discussed. F. H. Rathmann																																																			
18																																																			
ALB-11A METALLURGICAL LITERATURE CLASSIFICATION																																																			

COMMON ELEMENTS																		PERIODIC AND PROPERTIES INDEX																	
OPEN																		COMMON ELEMENTS INDEX																	
MATERIALS INDEX																																			
BC																		A-1																	
<p>Inflammability of ammonia in presence and absence of a catalyst. H. ABENHAUS, N. TOKAREV, and N. MUKHOMOTOV (Acta Physicochim. U.R.S.S., 1935, 2, 401-420).--The limiting pressures for the explosion of NH<sub>3</sub>-air mixtures have been studied as a function of temp. and [NH<sub>3</sub>] without a catalyst, and in presence of Pt gauze treated in various ways. The explosion region becomes narrower in presence of H<sub>2</sub>O vapour, especially in decreasing the max. [NH<sub>3</sub>] for explosion. The photochemical oxidation of NH<sub>3</sub> has also been investigated, and the mechanism of the oxidation process is discussed.</p> <p style="text-align: right;">J. W. S.</p>																																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																																			
SUBJECT INDEX																		AUTHOR INDEX																	
SYNOPSIS																		BRIEFING																	
TITLE																		SUMMARY																	
ABSTRACT																		REFERENCES																	
NOTES																		COMMENTS																	
REMARKS																		DISCUSSION																	
CONCLUSIONS																		RECOMMENDATIONS																	
APPENDICES																		REFERENCES																	
BIBLIOGRAPHY																		INDEX																	

TO: N. M. I.

TOKAREV, N. M. I. IRINAKHOV, G. S.

29180 Remalirovanie zahoda proizvediteley na estestvennye nerostil'shola.  
Ryb. khoz-vo, 1949, No. 9, s. 27-28.

SO: Letopis' Zhurnal'nykh Statey, Vol. 39, Moskov, 1949

TOKAREV, N. N.

"Sorption of uranium from carbonate solutions and pulps."

report submitted for 3rd Intl Conf, Peaceful Uses of Atomic Energy, Geneva,  
31 Aug-9 Sep 64.

L 46106-66 EWT(m)/EWP(t)/ETI IJP(c) JF

ACC NR: AR6000435

SOURCE CODE: UR/0137/65/000/009/G018/G018

AUTHORS: Laskorin, B. N.; Tokarev, N. N.; Vodolazov, L. I.

TITLE: Continuous methods for sorptional extraction of rare and nonferrous metals from pulps

SOURCE: Ref. zh. Metallurgiya, Abs. 9G159

REF SOURCE: Sb. Ionoobmen. tekhnologiya. M., Nauka, 1965, 55-62

TOPIC TAGS: metallurgy, physical metallurgy, metal extracting, nonferrous metal

ABSTRACT: A filterless-sorptional method for extracting nonferrous and rare metals is described. Under industrial conditions this method has been approved in 1953-- 1954, producing excellent results (it assures the increase of plant productivity by a factor of 1.5--3.0, increases the extraction of useful components by 5--10%, raises the productivity of key workers by a factor of 2--3, diminishes the use of chemicals and auxiliary materials). Working plans and descriptions of static variant of the sorptional treatment of pulp are presented, as is the method for the sorptional treatment of pulp in the suspended layer of ionite, in the moving layer of ionite, in the apparatus with pneumatic mixing, and in the continuous method for sorptional extraction of nonferrous and rare metals. 10 illustrations. V. Semakin [Translation of abstract]

SUB CODE: 11

Card 1/1 JS

UDC: 669.85/.86.09

I 45716-66 EWT(m)/EWP(j)/EWP(t)/ETI LJP(c) JD/WW/JG/RO/JK/RM  
ACC NR: AF6025400 SOURCE CODE: UR/0062/66/000/007/1267/1269

AUTHOR: Vol'nov, I. I.; Tokareva, S. A.; Klimanov, V. I.; Pilipenko, G. P. 4/4/1  
B

ORG: Institute of General and Inorganic Chemistry im. N. S. Kurnakov, Academy of Sciences, SSR (Institut obshchey i neorganicheskoy khimii Akademii nauk SSSR)

TITLE: Synthesis of potassium ozonide via potassium superoxide suspended in Freon-12

SOURCE: AN SSSR. Izv. Ser khim, no. 7, 1966, 1267-1269

TOPIC TAGS: ozonide, superoxide, potassium compound

ABSTRACT: The reaction of  $KO_2$  with ozone was carried out in Freon-12, a liquid inert toward ozone. Potassium superoxide had the following composition:  $KO_2$ , 90.22%;  $K_2O_2$ , 3.85%; KOH, 2.75%;  $K_2CO_3$ , 1.85%;  $H_2O$ , 1.33% (by difference). Its particle size was 0.05 mm or less. The ozone content of the ozone-oxygen mixture was 9 wt. %. The step of extraction with liquid ammonia was omitted. Analysis of the ozonized product gave  $KO_3$ , 77.2;  $KO_2$ , 6.4; KOH, 10.6;  $K_2CO_3$ , 5.6 wt. %. The increase in the amount of KOH and  $K_2CO_3$  impurities in the end product as compared to their content in the original potassium superoxide is due to the reaction of  $KO_3$  with atmospheric moisture and  $CO_2$  during the withdrawal of the samples for analysis, despite all the precautions taken. Orig. art. has: 1 figure and 2 tables.

SUB CODE: 07/ SUBM DATE: 18Dec65/ ORIG REF: 003/ OTH REF: 003

Card 1/1 ULR

UDC: 542.91+542.943.5+621.384.5+546.32

TOKAREV, M. S.

The hydrogeological subdivisions of the Eastern Siberian Region. Irkutsk,  
Vostochnosibirskoe kraevoe izd-vo, 1936. 37 p. map. (50-44539)

GB707.T6

1. Water-supply - Siberia.

TOKAREV, N.S.

Division of the territory of the U.S.S.R. on the basis of  
climate, subsurface and surface water conditions. Trudy NPI  
128:3-24 '62. (MIRA 15:9)

(Climatology) (Hydrology)



POSOKHOV, Ye.V.; LAZAREV, K.G., otv.red.; TOLSTIKHIN, N.I., prof., retsen-  
zent; TOKAREV, N.S., prof., retsenzent; SIMKIN, S.M., red, izd-va;  
MAKUNI, Ye.V., tekhn.red.

[Studies in the hydrochemistry of underground waters in central  
regions of Kazakhstan] Ocherki po gidrokhimii podzemnykh vod  
tsentral'nykh raionov Kazakhstana. Moskva, Izd-vo Akad.nauk SSSR,  
1960. 158 p. (MIRA 13:4)

(Kazakhstan--Water, Underground)

TOKAREV, N. S.

"The Relation of the Underground and Surface Water System to Climatic Variations." Dr Geol-Min Sci, Novocherkassk Polytechnic Inst imeni S. Ordzhonikidze, Novocherkassk, 1954. (Published, No 2, 1955)

SO: Sum. No. 631, 26 Aug 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14)

TOKAREV, H.S.

Dislocation of climatic zones in the present and in the geological  
past and their effect on the chemistry of underground waters. Trudy  
NPI 156:3-22 '64. (MIRA 18:7)

ZAKHAROV, V.V.; TOKAREV, N.S.

New simple method for determining the level of underground  
waters for any given date. Trudy NPI 128:25-41 '62.

(MIRA 15:9)

(Astrakhan Province--Water, Underground)

(Volgograd Province--Water, Underground)

ТОКАРЕВ, Н. В. ВЪЗРАСТОВ. Н. 1.

"The Dependence of the Pressure Increment During an Explosion on the Initial Conditions."

Zhur. Fiz. Khim., Vol. 14, No. 4, 1940

TOKAREV, N. V.; NEKRASOV, N. I.

"The Dependence of the Pressure Increment During an Explosion on the Initial Conditions."

Zhur. Fiz. Khim., Vol. 14, No. 4, 1940.

PRECEDENTS AND PROPERTIES INDEX																																																																													
1ST AND 2ND EDITIONS													1ST AND 2ND EDITIONS																																																																
<p><b>NH<sub>3</sub></b> - the primary product in the explosive oxidation of ammonia. S. V. Tokarev. <i>J. Phys. Chem. (U.S.S.R.)</i> 14, 842-3 (1940). Using 1:1 and 1:2 NH<sub>3</sub>:O<sub>2</sub> mixes. for spark-induced explosions in a quartz vessel at an initial pressure of 150 mm. and temp. of 250°. F. found that the spectra as obtained from 800-1000 successive explosions show a strong 3300 Å. band due to NH. This supports the explosion mechanism proposed by Abeggauz, T. and Nekrasov, C. I. 20, 8211°.</p> <p style="text-align: right;">E. H. Rathmann</p>																																																																													
ASAC S.L.A. METALLURGICAL LITERATURE CLASSIFICATION																																																																													
<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>																										1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26																										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26																																																				

BC

A-1

N.V. Tokarev

NH<sub>3</sub>, the primary product of explosive oxidation of ammonium  
N.V. Tokarev, *Dokl. Akad. Nauk*, 1970, 14, 615. With  
the mixture of NH<sub>3</sub> (70-87%) and O<sub>2</sub> at 250° and 1.40 mm Hg  
was ignited by a spark. In the spectrum of the flame the  
band 3.00 μ of NH<sub>3</sub> was observed. In this NH<sub>3</sub> and not H<sub>2</sub>SO<sub>4</sub>  
is the primary product of NH<sub>3</sub> oxidation.



COMMON ELEMENTS		PROCEDURES AND PROPERTIES INDEX		COMMON VARIABLES INDEX	
<p><i>BC</i></p> <p><b>Ignition and self-inflammation of ammonia and of nitrogen-hydrogen mixtures. N. V. TOKAREV and N. I. NEKRASSOV (J. Phys. Chem. Russ., 1936, 8, 504—513).</b>—The min. temp. (<math>t_{min}</math>) of self-inflammation of <math>H_2 + N_2 + O_2</math> and <math>NH_3 + O_2</math> are 440° and 700°, respectively; the min. pressures (<math>p_{min}</math>) are 5 and 10 mm.; <math>t_{min}</math> and <math>p_{min}</math> are independent of composition of the mixtures. The limits of ignition by a spark of the same mixtures are 5—90% <math>H_2</math> and 10—90% <math>NH_3</math>; <math>p_{min}</math> is a hyperbolic function of the composition, with a min. at 26% <math>H_2</math> (or <math>NH_3</math>), and a linear function of temp. Extrapolated curves of <math>p_{min} = f(t)</math> for spark ignition intersect in a point identical with <math>p_{min}</math> for self-inflammation, showing the essential identity of the mechanisms of both reactions. E. R.</p>		<p>2-1</p>			
<p>ASB-51A METALLURGICAL LITERATURE CLASSIFICATION</p>					
<p>FROM SYMBOL</p>		<p>TO SYMBOL</p>		<p>FROM SYMBOL</p>	
<p>GROUP</p>		<p>CLASSIFICATION</p>		<p>GROUP</p>	
<p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100</p>		<p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100</p>		<p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100</p>	

LIST AND 2ND COLUMNS																										PROCESSES AND PROPERTIES INDEX																									
COMMON ELEMENTS													COMMON ELEMENTS													COMMON ELEMENTS													COMMON ELEMENTS												
COMMON ELEMENTS													COMMON ELEMENTS													COMMON ELEMENTS													COMMON ELEMENTS												
<p>Relationship between initial conditions and pressure increase at explosion of gas mixtures. N. V. Tokarev and N. I. Nekrasov (<i>Acta Physicochim. U.R.S.S.</i>, 1940, 12, 573-588, cf. A., 1937, 1, 247).—For <math>\text{NH}_3</math>, <math>\text{O}_2</math>, <math>\text{NH}_3</math>, air, and <math>\text{H}_2</math>-<math>\text{N}_2</math>-<math>\text{O}_2</math> mixtures there is a linear relationship between the pressure increase <math>\Delta p</math> occurring when the mixture is exploded by a spark and its initial pressure, and between <math>\Delta p</math> and the initial temp. The straight lines representing these relations for any given mixture meet at a point where <math>\Delta p = 0</math> and the initial pressure or temp. is that characteristic of the spontaneous inflammation of the mixture. Thus the vals. characterising spontaneous ignition can be approx. calc. from those characterising spark ignition. F. L. U.</p>																																																			
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			

24

*ca*

Relation between pressure increase in an explosion and the initial conditions of pressure, temperature and density. N. V. Tokarev and N. I. Nekrasov. *J. Phys. Chem.* (U. S. S. R.) 14, 513-90(1940).—On the basis of expl. data on the explosion of various mixts. of  $\text{NH}_3$  and  $\text{O}_2$  or air at tempn. from 180 to 350°. T. and N. find that the increase of pressure  $\Delta P$  is related to the initial pressure  $P_i$  by the equation  $\Delta P = A(P_i - P_0)$  where  $P_0$  is the pressure at the lower limit of inflammation. For a given system the straight lines for various compos. all meet in one point corresponding to the lower pressure limit for that system. Similarly, the straight lines for the linear relation  $\Delta P = B(T_i - T_0)$  also meet at the lower temp. limit. Since the values  $P_0$  and  $T_0$  can be approx. calcd. from characteristic values for forced or spark ignition, common physicochem. factors must enter into the propagation of an explosion into the vol. both in spark and in lower limit self-inflammation. The pressure increase can also be given as a function of the initial density.

F. H. Rathmann

ASB-61A METALLURGICAL LITERATURE CLASSIFICATION

FROM SYMPOSIUM

FROM JOURNAL

1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953 1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2111 2112 2113 2114 2115 2116 2117 2118 2119 2120 2121 2122 2123 2124 2125 2126 2127 2128 2129 2130 2131 2132 2133 2134 2135 2136 2137 2138 2139 2140 2141 2142 2143 2144 2145 2146 2147 2148 2149 2150 2151 2152 2153 2154 2155 2156 2157 2158 2159 2160 2161 2162 2163 2164 2165 2166 2167 2168 2169 2170 2171 2172 2173 2174 2175 2176 2177 2178 2179 2180 2181 2182 2183 2184 2185 2186 2187 2188 2189 2190 2191 2192 2193 2194 2195 2196 2197 2198 2199 2200 2201 2202 2203 2204 2205 2206 2207 2208 2209 2210 2211 2212 2213 2214 2215 2216 2217 2218 2219 2220 2221 2222 2223 2224 2225 2226 2227 2228 2229 2230 2231 2232 2233 2234 2235 2236 2237 2238 2239 2240 2241 2242 2243 2244 2245 2246 2247 2248 2249 2250 2251 2252 2253 2254 2255 2256 2257 2258 2259 2260 2261 2262 2263 2264 2265 2266 2267 2268 2269 2270 2271 2272 2273 2274 2275 2276 2277 2278 2279 2280 2281 2282 2283 2284 2285 2286 2287 2288 2289 2290 2291 2292 2293 2294 2295 2296 2297 2298 2299 2300 2301 2302 2303 2304 2305 2306 2307 2308 2309 2310 2311 2312 2313 2314 2315 2316 2317 2318 2319 2320 2321 2322 2323 2324 2325 2326 2327 2328 2329 2330 2331 2332 2333 2334 2335 2336 2337 2338 2339 2340 2341 2342 2343 2344 2345 2346 2347 2348 2349 2350 2351 2352 2353 2354 2355 2356 2357 2358 2359 2360 2361 2362 2363 2364 2365 2366 2367 2368 2369 2370 2371 2372 2373 2374 2375 2376 2377 2378 2379 2380 2381 2382 2383 2384 2385 2386 2387 2388 2389 2390 2391 2392 2393 2394 2395 2396 2397 2398 2399 2400 2401 2402 2403 2404 2405 2406 2407 2408 2409 2410 2411 2412 2413 2414 2415 2416 2417 2418 2419 2420 2421 2422 2423 2424 2425 2426 2427 2428 2429 2430 2431 2432 2433 2434 2435 2436 2437 2438 2439 2440 2441 2442 2443 2444 2445 2446 2447 2448 2449 2450 2451 2452 2453 2454 2455 2456 2457 2458 2459 2460 2461 2462 2463 2464 2465 2466 2467 2468 2469 2470 2471 2472 2473 2474 2475 2476 2477 2478 2479 2480 2481 2482 2483 2484 2485 2486 2487 2488 2489 2490 2491 2492 2493 2494 2495 2496 2497 2498 2499 2500 2501 2502 2503 2504 2505 2506 2507 2508 2509 2510 2511 2512 2513 2514 2515 2516 2517 2518 2519 2520 2521 2522 2523 2524 2525 2526 2527 2528 2529 2530 2531 2532 2533 2534 2535 2536 2537 2538 2539 2540 2541 2542 2543 2544 2545 2546 2547 2548 2549 2550 2551 2552 2553 2554 2555 2556 2557 2558 2559 2560 2561 2562 2563 2564 2565 2566 2567 2568 2569 2570 2571 2572 2573 2574 2575 2576 2577 2578 2579 2580 2581 2582 2583 2584 2585 2586 2587 2588 2589 2590 2591 2592 2593 2594 2595 2596 2597 2598 2599 2600 2601 2602 2603 2604 2605 2606 2607 2608 2609 2610 2611 2612 2613 2614 2615 2616 2617 2618 2619 2620 2621 2622 2623 2624 2625 2626 2627 2628 2629 2630 2631 2632 2633 2634 2635 2636 2637 2638 2639 2640 2641 2642 2643 2644 2645 2646 2647 2648 2649 2650 2651 2652 2653 2654 2655 2656 2657 2658 2659 2660 2661 2662 2663 2664 2665 2666 2667 2668 2669 2670 2671 2672 2673 2674 2675 2676 2677 2678 2679 2680 2681 2682 2683 2684 2685 2686 2687 2688 2689 2690 2691 2692 2693 2694 2695 2696 2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2710 2711 2712 2713 2714 2715 2716 2717 2718 2719 2720 2721 2722 2723 2724 2725 2726 2727 2728 2729 2730 2731 2732 2733 2734 2735 2736 2737 2738 2739 2740 2741 2742 2743 2744 2745 2746 2747 2748 2749 2750 2751 2752 2753 2754 2755 2756 2757 2758 2759 2760 2761 2762 2763 2764 2765 2766 2767 2768 2769 2770 2771 2772 2773 2774 2775 2776 2777 2778 2779 2780 2781 2782 2783 2784 2785 2786 2787 2788 2789 2790 2791 2792 2793 2794 2795 2796 2797 2798 2799 2800 2801 2802 2803 2804 2805 2806 2807 2808 2809 2810 2811 2812 2813 2814 2815 2816 2817 2818 2819 2820 2821 2822 2823 2824 2825 2826 2827 2828 2829 2830 2831 2832 2833 2834 2835 2836 2837 2838 2839 2840 2841 2842 2843 2844 2845 2846 2847 2848 2849 2850 2851 2852 2853 2854 2855 2856 2857 2858 2859 2860 2861 2862 2863 2864 2865 2866 2867 2868 2869 2870 2871 2872 2873 2874 2875 2876 2877 2878 2879 2880 2881 2882 2883 2884 2885 2886 2887 2888 2889 2890 2891 2892 2893 2894 2895 2896 2897 2898 2899 2900 2901 2902 2903 2904 2905 2906 2907 2908 2909 2910 2911 2912 2913 2914 2915 2916 2917 2918 2919 2920 2921 2922 2923 2924 2925 2926 2927 2928 2929 2930 2931 2932 2933 2934 2935 2936 2937 2938 2939 2940 2941 2942 2943 2944 2945 2946 2947 2948 2949 2950 2951 2952 2953 2954 2955 2956 2957 2958 2959 2960 2961 2962 2963 2964 2965 2966 2967 2968 2969 2970 2971 2972 2973 2974 2975 2976 2977 2978 2979 2980 2981 2982 2983 2984 2985 2986 2987 2988 2989 2990 2991 2992 2993 2994 2995 2996 2997 2998 2999 3000 3001 3002 3003 3004 3005 3006 3007 3008 3009 3010 3011 3012 3013 3014 3015 3016 3017 3018 3019 3020 3021 3022 3023 3024 3025 3026 3027 3028 3029 3030 3031 3032 3033 3034 3035 3036 3037 3038 3039 3040 3041 3042 3043 3044 3045 3046 3047 3048 3049 3050 3051 3052 3053 3054 3055 3056 3057 3058 3059 3060 3061 3062 3063 3064 3065 3066 3067 3068 3069 3070 3071 3072 3073 3074 3075 3076 3077 3078 3079 3080 3081 3082 3083 3084 3085 3086 3087 3088 3089 3090 3091 3092 3093 3094 3095 3096 3097 3098 3099 3100 3101 3102 3103 3104 3105 3106 3107 3108 3109 3110 3111 3112 3113 3114 3115 3116 3117 3118 3119 3120 3121 3122 3123 3124 3125 3126 3127 3128 3129 3130 3131 3132 3133 3134 3135 3136 3137 3138 3139 3140 3141 3142 3143 3144 3145 3146 3147 3148 3149 3150 3151 3152 3153 3154 3155 3156 3157 3158 3159 3160 3161 3162 3163 3164 3165 3166 3167 3168 3169 3170 3171 3172 3173 3174 3175 3176 3177 3178 3179 3180 3181 3182 3183 3184 3185 3186 3187 3188 3189 3190 3191 3192 3193 3194 3195 3196 3197 3198 3199 3200 3201 3202 3203 3204 3205 3206 3207 3208 3209 3210 3211 3212 3213 3214 3215 3216 3217 3218 3219 3220 3221 3222 3223 3224 3225 3226 3227 3228 3229 3230 3231 3232 3233 3234 3235 3236 3237 3238 3239 3240 3241 3242 3243 3244 3245 3246 3247 3248 3249 3250 3251 3252 3253 3254 3255 3256 3257 3258 3259 3260 3261 3262 3263 3264 3265 3266 3267 3268 3269 3270 3271 3272 3273 3274 3275 3276 3277 3278 3279 3280 3281 3282 3283 3284 3285 3286 3287 3288 3289 3290 3291 3292 3293 3294 3295 3296 3297 3298 3299 3300 3301 3302 3303 3304 3305 3306 3307 3308 3309 3310 3311 3312 3313 3314 3315 3316 3317 3318 3319 3320 3321 3322 3323 3324 3325 3326 3327 3328 3329 3330 3331 3332 3333 3334 3335 3336 3337 3338 3339 3340 3341 3342 3343 3344 3345 3346 3347 3348 3349 3350 3351 3352 3353 3354 3355 3356 3357 3358 3359 3360 3361 3362 3363 3364 3365 3366 3367 3368 3369 3370 3371 3372 3373 3374 3375 3376 3377 3378 3379 3380 3381 3382 3383 3384 3385 3386 3387 3388 3389 3390 3391 3392 3393 3394 3395 3396 3397 3398 3399 3400 3401 3402 3403 3404 3405 3406 3407 3408 3409 3410 3411 3412 3413 3414 3415 3416 3417 3418 3419 3420 3421 3422 3423 3424 3425 3426 3427 3428 3429 3430 3431 3432 3433 3434 3435 3436 3437 3438 3439 3440 3441 3442 3443 3444 3445 3446 3447 3448 3449 3450 3451 3452 3453 3454 3455 3456 3457 3458 3459 3460 3461 3462 3463 3464 3465 3466 3467 3468 3469 3470 3471 3472 3473 3474 3475 3476 3477 3478 3479 3480 3481 3482 3483 3484 3485 3486 3487 3488 3489 3490 3491 3492 3493 3494 3495 3496 3497 3498 3499 3500 3501 3502 3503 3504 3505 3506 3507 3508 3509 3510 3511 3512 3513 3514 3515 3516 3517 3518 3519 3520 3521 3522 3523 3524 3525 3526 3527 3528 3529 3530 3531 3532 3533 3534 3535 3536 3537 3538 3539 3540 3541 3542 3543 3544 3545 3546 3547 3548 3549 3550 3551 3552 3553 3554 3555 3556 3557 3558 3559 3560 3561 3562 3563 3564 3565 3566 3567 3568 3569 3570 3571 3572 3573 3574 3575 3576 3577 3578 3579 3580 3581 3582 3583 3584 3585 3586 3587 3588 3589 3590 3591 3592 3593 3594 3595 3596 3597 3598 3599 3600 3601 3602 3603 3604 3605 3606 3607 3608 3609 3610 3611 3612 3613 3614 3615 3616 3617 3618 3619 3620 3621 3622 3623 3624 3625 3626 3627 3628 3629 3630 3631 3632 3633 3634 3635 3636 3637 3638 3639 3640 3641 3642 3643 3644 3645 3646 3647 3648 3649 3650 3651 3652 3653 3654 3655 3656 3657 3658 3659 3660 3661 3662 3663 3664 3665 3666 3667 3668 3669 3670 3671 3672 3673 3674 3675 3676 3677 3678 3679 3680 3681 3682 3683 3684 3685 3686 3687 3688 3689 3690 3691 3692 3693 3694 3695 3696 3697 3698 3699 3700 3701 3702 3703 3704 3705 3706 3707 3708 3709 3710 3711 3712 3713 3714 3715 3716 3717 3718 3719 3720 3721 3722 3723 3724 3725 3726 3727 3728 3729 3730 3731 3732 3733 3734 3735 3736 3737 3738 3739 3740 3741 3742 3743 3744 3745 3746 3747 3748 3749 3750 3751 3752 3753 3754 3755 3756 3757 3758 3759 3760 3761 3762 3763 3764 3765 3766 3767 3768 3769 3770 3771 3772 3773 3774 3775 3776 3777 3778 3779 3780 3781 3782 3783 3784 3785 3786 3787 3788 3789 3790 3791 3792 3793 3794 3795 3796 3797 3798 3799 3800 3801 3802 3803 3804 3805 3806 3807 3808 3809 3810 3811 3812 3813 3814 3815 3816 3817 3818 3819 3820 3821 3822 3823 3824 3825 3826 3827 3828 3829 3830 3831 3832 3833 3834 3835 3836 3837 3838 3839 3840 3841 3842 3843 3844 3845 3846 3847 3848 3849 3850 3851 3852 3853 3854 3855 3856 3857 3858 3859 3860 3861 3862 3863 3864 3865 3866 3867 3868 3869 3870 3871 3872 3873 3874 3875 3876 3877 3878 3879 3880 3881 3882 3883 3884 3885 3886 3887 3888 3889 3890 3891 3892 3893 3894 3895 3896 3897 3898 3899 3900 3901 3902 3903 3904 3905 3906 3907 3908 3909 3910 3911 3912 3913 3914 3915 3916 3917 3918 3919 3920 3921 3922 3923 3924 3925 3926 3927 3928 3929 3930 3931 3932 3933 3934 3935 3936 3937 3938 3939 3940 3941 3942 3943 3944 3945 3946 3947 3948 3949 3950 3951 3952 3953 3954 3955 3956 3957 3958 3959 3960 3961 3962 3963 3964 3965 3966 3967 3968 3969 3970 3971 3972 3973 3974 3975 3976 3977 3978 3979 3980 3981 3982 3983 3984 3985 3986 3987 3988 3989 3990 3991 3992 3993 3994 3995 3996 3997 3998 3999 4000 4001 4002 4003 4004 4005 4006 4007 4008 4009 4010 4011 4012 4013 4014 4015 4016 4017 4018 4019 4020 4021 4022 4023 4024 4025 4026 4027 4028 4029 4030 4031 4032 4033 4034 4035 4036 4037 4038 4039 4040 4041 4042 4043 4044 4045 4046 4047 4048 4049 4050 4051 4052 4053 4054 4055 4056 4057 4058 4059 4060 4061 4062 4063 4064 4065 4066 4067 4068 4069 4070 4071 4072 4073 4074 4075 4076 4077 4078 4079 4080 4081 4082 4083 4084 4085 4086 4087 4088 4089 4090 4091 4092 4093 4094 4095 4096 4097 4098 4099 4100 4101 4102 4103 4104 4105 4106 4107 4108 4109 4110 4111 4112 4113 4114 4115 4116 4117 4118 4119 4120 4121 4122 4123 4124 4125 4126 4127 4128 4129 4130 4131 4132 4133 4134 4135 4136 4137 4138 4139 4140 4141 4142 4143 4144 4145 4146 4147 4148 4149 4150 4151 4152 4153 4154 4155 4156 4157 4158 4159 4160 4161 4162 4163 4164 4165 4166 4167 4168 4169 4170 4171 4172 4173 4174 4175 4176 4177 4178 4179 4180 4181 4182 4183 4184 4185 4186 4187 4188 4189 4190 4191 4192 4193 4194 4195 4196 4197 4198 4199 4200 4201 4202 4203 4204 4205 4206 4207 4208 4209 4210 4211 4212 4213 4214 4215 4216 4217 4218 4219 4220 4221 4222 4223 4224 4225 4226 4227 4228 4229 4230 4231 4232 4233 4234 4235 4236 4237 4238 4239 4240 4241 4242 4243 4244 4245 4246 4247 4248 4249 4250 4251 4252 4253 4254 4255 4256 4257 4258 4259 4260 4261 4262 4263 4264 4265 4266 4267 4268 4269 4270 4271 4272 4273 4274 4275 4276 4277 4278 4279 4280 4281 4282 4283 4284 4285 4286 4287 4288 4289 4290 4291 4292 4293 4294 4295 4296 4297 4298 4299 4300 4301 43

1ST AND 2ND DEGREES										PROCESSES AND PROPERTIES INDEX									
<p>CA</p> <p>Relation between pressure increase in an explosion and the initial conditions of pressure, temperature and density. N. V. Tokarev and N. I. Nekrasov. <i>Acta Physicochim.</i> U. R. S. S. 12, 573-88 (1940) (in English).—See C. A. 35, 2325.</p>										<p>24</p>									
ADN-55A METALLURGICAL LITERATURE CLASSIFICATION										1ST AND 2ND DEGREES									
1ST AND 2ND DEGREES										1ST AND 2ND DEGREES									

24

*Ca*

Combustion and self-ignition of ammonia and nitrogen-hydrogen mixtures. N. V. Tokarev and N. I. Nekrasov.

*J. Phys. Chem. (U. S. S. R.) 8, 544-13(1936).—Ten figures show the parabolic region of inflammation of these gas mixts. with O<sub>2</sub> and with air at from 20° up to 700°. The limits of concn. for explosion are 5 to 90% for (3H<sub>2</sub> + N<sub>2</sub>) + O<sub>2</sub>, 8 to 87% for (3H<sub>2</sub> + N<sub>2</sub>) + air and 10 to 80% for (NH<sub>3</sub> + O<sub>2</sub>). The temp. of self inflammation of the 1st mixt. is 440°, of the 2nd 380°, and of the 3rd 700°. A linear relation holds between min. pressure and initial temp. of explosion. The temp. of self-inflammation does not vary with the percentage content of combustible gas.*

F. H. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1936-1937

1938-1939

1940-1941

1942-1943

1944-1945

1946-1947

1948-1949

1950-1951

1952-1953

1954-1955

1956-1957

1958-1959

1960-1961

1962-1963

1964-1965

1966-1967

1968-1969

1970-1971

1972-1973

1974-1975

1976-1977

1978-1979

1980-1981

1982-1983

1984-1985

1986-1987

1988-1989

1990-1991

1992-1993

1994-1995

1996-1997

1998-1999

2000-2001

2002-2003

2004-2005

2006-2007

2008-2009

2010-2011

2012-2013

2014-2015

2016-2017

2018-2019

2020-2021

2022-2023

2024-2025

2026-2027

2028-2029

2030-2031

2032-2033

2034-2035

2036-2037

2038-2039

2040-2041

2042-2043

2044-2045

2046-2047

2048-2049

2050-2051

2052-2053

2054-2055

2056-2057

2058-2059

2060-2061

2062-2063

2064-2065

2066-2067

2068-2069

2070-2071

2072-2073

2074-2075

2076-2077

2078-2079

2080-2081

2082-2083

2084-2085

2086-2087

2088-2089

2090-2091

2092-2093

2094-2095

2096-2097

2098-2099

2100-2101

2102-2103

2104-2105

2106-2107

2108-2109

2110-2111

2112-2113

2114-2115

2116-2117

2118-2119

2120-2121

2122-2123

2124-2125

2126-2127

2128-2129

2130-2131

2132-2133

2134-2135

2136-2137

2138-2139

2140-2141

2142-2143

2144-2145

2146-2147

2148-2149

2150-2151

2152-2153

2154-2155

2156-2157

2158-2159

2160-2161

2162-2163

2164-2165

2166-2167

2168-2169

2170-2171

2172-2173

2174-2175

2176-2177

2178-2179

2180-2181

2182-2183

2184-2185

2186-2187

2188-2189

2190-2191

2192-2193

2194-2195

2196-2197

2198-2199

2200-2201

2202-2203

2204-2205

2206-2207

2208-2209

2210-2211

2212-2213

2214-2215

2216-2217

2218-2219

2220-2221

2222-2223

2224-2225

2226-2227

2228-2229

2230-2231

2232-2233

2234-2235

2236-2237

2238-2239

2240-2241

2242-2243

2244-2245

2246-2247

2248-2249

2250-2251

2252-2253

2254-2255

2256-2257

2258-2259

2260-2261

2262-2263

2264-2265

2266-2267

2268-2269

2270-2271

2272-2273

2274-2275

2276-2277

2278-2279

2280-2281

2282-2283

2284-2285

2286-2287

2288-2289

2290-2291

2292-2293

2294-2295

2296-2297

2298-2299

2300-2301

2302-2303

2304-2305

2306-2307

2308-2309

2310-2311

2312-2313

2314-2315

2316-2317

2318-2319

2320-2321

2322-2323

2324-2325

2326-2327

2328-2329

2330-2331

2332-2333

2334-2335

2336-2337

2338-2339

2340-2341

2342-2343

2344-2345

2346-2347

2348-2349

2350-2351

2352-2353

2354-2355

2356-2357

2358-2359

2360-2361

2362-2363

2364-2365

2366-2367

2368-2369

2370-2371

2372-2373

2374-2375

2376-2377

2378-2379

2380-2381

2382-2383

2384-2385

2386-2387

2388-2389

2390-2391

2392-2393

2394-2395

2396-2397

2398-2399

2400-2401

2402-2403

2404-2405

2406-2407

2408-2409

2410-2411

2412-2413

2414-2415

2416-2417

2418-2419

2420-2421

2422-2423

2424-2425

2426-2427

2428-2429

2430-2431

2432-2433

2434-2435

2436-2437

2438-2439

2440-2441

2442-2443

2444-2445

2446-2447

2448-2449

2450-2451

2452-2453

2454-2455

2456-2457

2458-2459

2460-2461

2462-2463

2464-2465

2466-2467

2468-2469

2470-2471

2472-2473

2474-2475

2476-2477

2478-2479

2480-2481

2482-2483

2484-2485

2486-2487

2488-2489

2490-2491

2492-2493

2494-2495

2496-2497

2498-2499

2500-2501

2502-2503

2504-2505

2506-2507

2508-2509

2510-2511

2512-2513

2514-2515

2516-2517

2518-2519

2520-2521

2522-2523

2524-2525

2526-2527

2528-2529

2530-2531

2532-2533

2534-2535

2536-2537

2538-2539

2540-2541

2542-2543

2544-2545

2546-2547

2548-2549

2550-2551

2552-2553

2554-2555

2556-2557

2558-2559

2560-2561

2562-2563

2564-2565

2566-2567

2568-2569

2570-2571

2572-2573

2574-2575

2576-2577

2578-2579

2580-2581

2582-2583

2584-2585

2586-2587

2588-2589

2590-2591

2592-2593

2594-2595

2596-2597

2598-2599

2600-2601

2602-2603

2604-2605

2606-2607

2608-2609

2610-2611

2612-2613

2614-2615

2616-2617

2618-2619

2620-2621

2622-2623

2624-2625

2626-2627

2628-2629

2630-2631

2632-2633

2634-2635

2636-2637

2638-2639

2640-2641

2642-2643

2644-2645

2646-2647

2648-2649

2650-2651

2652-2653

2654-2655

2656-2657

2658-2659

2660-2661

2662-2663

2664-2665

2666-2667

2668-2669

2670-2671

2672-2673

2674-2675

2676-2677

2678-2679

2680-2681

2682-2683

2684-2685

2686-2687

2688-2689

2690-2691

2692-2693

2694-2695

2696-2697

2698-2699

2700-2701

2702-2703

2704-2705

2706-2707

2708-2709

2710-2711

2712-2713

2714-2715

2716-2717

2718-2719

2720-2721

2722-2723

2724-2725

2726-2727

2728-2729

2730-2731

2732-2733

2734-2735

2736-2737

2738-2739

2740-2741

2742-2743

2744-2745

2746-2747

2748-2749

2750-2751

2752-2753

2754-2755

2756-2757

2758-2759

2760-2761

2762-2763

2764-2765

2766-2767

2768-2769

2770-2771

2772-2773

2774-2775

2776-2777

2778-2779

2780-2781

2782-2783

2784-2785

2786-2787

2788-2789

2790-2791

2792-2793

2794-2795

2796-2797

2798-2799

2800-2801

2802-2803

2804-2805

2806-2807

2808-2809

2810-2811

2812-2813

2814-2815

2816-2817

2818-2819

2820-2821

2822-2823

2824-2825

2826-2827

2828-2829

2830-2831

2832-2833

2834-2835

2836-2837

2838-2839

2840-2841

2842-2843

2844-2845

2846-2847

2848-2849

2850-2851

2852-2853

2854-2855

2856-2857

2858-2859

2860-2861

2862-2863

2864-2865

2866-2867

2868-2869

2870-2871

2872-2873

2874-2875

2876-2877

2878-2879

2880-2881

2882-2883

2884-2885

2886-2887

2888-2889

2890-2891

2892-2893

2894-2895

2896-2897

2898-2899

2900-2901

2902-2903

2904-2905

2906-2907

2908-2909

2910-2911

2912-2913

2914-2915

2916-2917

2918-2919

2920-2921

2922-2923

2924-2925

2926-2927

2928-2929

2930-2931

2932-2933

2934-2935

2936-2937

2938-2939

2940-2941

2942-2943

2944-2945

2946-2947

2948-2949

2950-2951

2952-2953

2954-2955

2956-2957

2958-2959

2960-2961

2962-2963

2964-2965

2966-2967

2968-2969

2970-2971

2972-2973

2974-2975

2976-2977

2978-2979

2980-2981

2982-2983

2984-2985

2986-2987

2988-2989

2990-2991

2992-2993

2994-2995

2996-2997

2998-2999

3000-3001

3002-3003

3004-3005

3006-3007

3008-3009

3010-3011

3012-3013

3014-3015

3016-3017

3018-3019

3020-3021

3022-3023

3024-3025

3026-3027

3028-3029

3030-3031

3032-3033

3034-3035

3036-3037

3038-3039

3040-3041

3042-3043

3044-3045

3046-3047

3048-3049

3050-3051

3052-3053

3054-3055

3056-3057

3058-3059

3060-3061

3062-3063

3064-3065

3066-3067

3068-3069

3070-3071

3072-3073

3074-3075

3076-3077

3078-3079

3080-3081

3082-3083

3084-3085

3086-3087

3088-3089

3090-3091

3092-3093

3094-3095

3096-3097

3098-3099

3100-3101

3102-3103

3104-3105

3106-3107

3108-3109

3110-3111

3112-3113

3114-3115

3116-3117

3118-3119

3120-3121

3122-3123

3124-3125

3126-3127

3128-3129

3130-3131

3132-3133

3134-3135

3136-3137

3138-3139

3140-3141

3142-3143

3144-3145

3146-3147

3148-3149

3150-3151

3152-3153

3154-3155

3156-3157

3158-3159

3160-3161

3162-3163

3164-3165

3166-3167

3168-3169

3170-3171

3172-3173

3174-3175

3176-3177

3178-3179

3180-3181

3182-3183

3184-3185

3186-3187

3188-3189

3190-3191

3192-3193

3194-3195

3196-3197

3198-3199

3200-3201

3202-3203

3204-3205

3206-3207

3208-3209

3210-3211

3212-3213

3214-3215

3216-3217

3218-3219

3220-3221

3222-3223

3224-3225

3226-3227

3228-3229

3230-3231

3232-3233

3234-3235

3236-3237

3238-3239

3240-3241

3242-3243

3244-3245

3246-3247

3248-3249

3250-3251

3252-3253

3254-3255

3256-3257

3258-3259

3260-3261

3262-3263

3264-3265

3266-3267

3268-3269

3270-3271

3272-3273

3274-3275

3276-3277

3278-3279

3280-3281

3282-3283

3284-3285

3286-3287

3288-3289

3290-3291

3292-3293

3294-3295

3296-3297

3298-3299

3300-3301

3302-3303

3304-3305

3306-3307

3308-3309

3310-3311

3312-3313

3314-3315

3316-3317

3318-3319

3320-3321

3322-3323

3324-3325

3326-3327

3328-3329

3330-3331

3332-3333

3334-3335

3336-3337

3338-3339

3340-3341

3342-3343

3344-3345

3346-3347

3348-3349

3350-3351

3352-3353

3354-3355

3356-3357

3358-3359

3360-3361

3362-3363

3364-3365

3366-3367

3368-3369

3370-3371

3372-3373

3374-3375

3376-3377

3378-3379

3380-3381

3382-3383

3384-3385

3386-3387

3388-3389

3390-3391

3392-3393

3394-3395

3396-3397

3398-3399

3400-3401

3402-3403

3404-3405

3406-3407

3408-3409

3410-3411

3412-3413

3414-3415

3416-3417

3418-3419

3420-3421

3422-3423

3424-3425

3426-3427

3428-3429

3430-3431

3432-3433

3434-3435

3436-3437

3438-3439

3440-3441

3442-3443

3444-3445

3446-3447

3448-3449

3450-3451

3452-3453

3454-3455

3456-3457

3458-3459

3460-3461

3462-3463

3464-3465

3466-3467

3468-3469

3470-3471

3472-3473

3474-3475

3476-3477

3478-3479

3480-3481

3482-3483

3484-3485

3486-3487

3488-3489

3490-3491

3492-3493

3494-3495

3496-3497

3498-3499

3500-3501

3502-3503

3504-3505

3506-3507

3508-3509

3510-3511

3512-3513

3514-3515

3516-3517

3518-3519

352

24

PRECEDENT AND PRESENTATION

Ignition and self-ignition of ammonia and nitrogen-hydrogen mixtures (with air and oxygen). N. V. Tokarev and N. I. Nekrasov. *Acta Physicochim.* T. R. S. S. R. 837-486 (1937) (in German). The self-ignition temps. and the compns. of the  $H_2 + N_2 + NH_3 + O_2$  (air) mixts. were found to be as follows: for  $3H_2 + N_2 + O_2$ , 5.10°C above 440° and 5 mm.; for  $3H_2 + N_2 + air$ , 6.87°C above 324° and 7 mm.; and for  $NH_3 + O_2$ , 10.80°C above 700° and 10 mm. Complete curves for the ignition and the self-ignition regions are given from 20° to 700°. The temp.-pressure relation is linear and the straight lines for the various compns. of the mixts. meet in a point for the given system.

F. H. Rathmann

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

SECTION

GROUPS

SECTION

GROUPS



[illegible]

Figure 1. The effect of the concentration of the *Agaricus bisporus* spores on the growth of *Agaricus bisporus* on the substrate.

$\frac{1}{\sqrt{\pi}} \int_{-\infty}^{\infty} f(x) e^{-x^2} dx = \frac{1}{\sqrt{\pi}} \int_{-\infty}^{\infty} f(x) e^{-x^2} dx$

\*  $p < 0.05$  compared with the control group.

10

Cora

فہرست



A QUESTION NR. 11111111

with a ... The ... for all three

A ...

SUBMITTER ...

NR REF COM: ...

Card

3/3

OYVIN, I.A.; BALUDA, V.P.; SHEGEL, S.M.; TOKAREV, O.Y.; VENGLINSKAYA, E.A.;  
YAGODKINA, K.G.

Anticoagulant and antiphlogistic properties of phlogodym  
(neodymium pyrotechol disulphonate). Acta physiol. acad. sci.  
Hung. 24 no.3:373-379 '64

1. Department of Pathological physiology, Kuban Medica. Insti-  
tute, Krasnodar, USSR.

\*

OYVIN, I.A.; BALUDA, V.P.; SHEGEL, S.M.; TOKAREV, O.Y.; VENGLINSKAYA, E.A.  
YAGODKINA, E.G.

Anticoagulatn and antiphlogistic properties of phlogodym  
(neodymium pyrocatechol disulphonate). Acta physiol. acad.  
sci. Hung. 24 no.3:373-379 '64

1. Department of Pathological Physiology, Kuban Medical Institute  
Krasnodar, USSR.

TOKAREV, O.Yu.

Effect of aseptic inflammation on fibrinolytic activity of dog blood. Pat. fiziol. i eksp. terap. no.2:88-89 '64. (MIRA 17:9)

1. Kafedra patologicheskoy fiziologii (zav. - prof. I.A. Oyvin)  
Kubanskogo meditsinskogo instituta, Krasnodar.

OYVIN, I.A.; MILASH, G.P.; SHUBICH, M.G.; VENGLINSKAYA, Ye.A.;  
LUTSENKO, N.M.; MUKHAMEDZHANOV, I.A.; TOKAREV, O.Yu.;  
SHCHEGEL', S.M.; YAGODKINA, Ye.G. (Krasnodar)

Relation of the development of inflammation to the state of  
the blood coagulation system. Arkh. pat. 26 no.2:63-68 '64.

(MIRA 17:8)

1. Kafedra patologicheskoy fiziologii (zav. - prof. I.A. Oyvin),  
kafedra patologicheskoy anatomii (zav. - dotsent G.P. Milash)  
i kafedra gistologii (zav. - dotsent M.G. Shubich) Kubanskogo  
meditsinskogo instituta.

PONOMAREV, Yu.T.; TOKAREV, O.Yu.

Changes in the blood coagulation system in rabbits, rats and dogs  
in sudden death. Biul.eksp.biol.i med. 57 no.5:39-41 My '64.  
(MIRA 18:2)

1. Kafedra patologicheskoy fiziologii (zav. - prof. I.A.Oyvin)  
Kubanskogo meditsinskogo instituta, Krasnodar. Submitted July  
3, 1962.

OYVIN, I.A.; KIR'YAKOV, M.A.; KOROLEVA, L.V.; ROMANOVSKAYA, L.L.;  
SVESHNIKOV, A.A.; TOKAREV, O.Yu.; UKLONSKAYA, L.I.

Radiometric study of problems of the pathogenesis and  
experimental therapy of inflammatory edemas. Vest. AMN  
SSSR 20 no.9:87-93 '65. (MIRA 18:11)

1. Institut meditsinskoy radiologii AMN SSSR, Obninsk.

TOKAREV, P. [Tokariev, P.], inzh.

Glass heat-resistant pipe. Bud. mat. i konstr. 4 no.2:26-29  
Mr-Ap '62. (MIRA 15:9)

(Pipe, Glass—Testing)



*TOKAREV, PETR*  
PHASE I BOOK EXPLOITATION

242

Tokarev, Petr Alekseyevich, Engineer Colonel

Khozyain samoleta; rasskaz ob aviatsionnom mekhanike samoleta  
(The Master of the Aircraft; Aircraft Mechanic's Story)  
Moscow, Voen. izd-vo Min-va obor. SSSR, 1957. 118 p. (Series:  
Nauchno-populyarnaya biblioteka)

Ed.: Zakharov, D.M., Engineer Lieutenant-Colonel; Tech. Ed.:  
Mednikova, A.N.

PURPOSE: The book is intended to aid young draftees of the Soviet Air  
Force in choosing a specialty in the aviation field.

COVERAGE: The author discusses in popular terms the basic concepts of  
aviation, such as control surfaces, drag, propeller or jet engine  
thrust, forces acting on aircraft in flight, material for aircraft  
parts, prevention of corrosion, turbojet engines, structural rigidity  
of wings, banking, etc.

TABLE OF  
CONTENTS:

Foreword by the author	3
Ch. I. The Foundation of Skill is Knowledge	5
Card 1/2	

The Master of the Aircraft (Cont.)	242
Ch. II. The Aircraft Mechanic (Technician) at the Time of the Second World War	39
Ch. III. There Are No Trifles in Aviation	56
Ch. IV. Checking is a Vital Matter	87
Ch. V. The Role of the Aircraft Mechanic (technician) Under Present Conditions of Servicing Aircraft	113
AVAILABLE: Library of Congress (TL671.9.T6)	

MLM/ksv  
7-24-58

Card 2/2

TOKAREV, Petr Alekseyevich.

~~TOKAREV, Petr Alekseyevich; inzhener-polkovnik; ZAKHAROV, D.M., inzhener-~~  
~~podpolkovnik, redaktor; MEDNIKOVA, A.N., tekhnicheskly redaktor~~

[Master of the airplane; story about an airplane mechanic] Khoziain  
samoleta; rasskaz ob aviatsionnom mekhanike samoleta. Moskva, Voen.  
izd-vo M-va obor. SSSR, 1957. 118 p. (MLRA 10:9)  
(Airplanes--Maintenance and repair)

TOKAREV, P.D.; LEPIN, A.E., red.; SMIRNOV, P.S., tekhn.red.

[Repair and use of television sets] Eksploatatsiia i remont  
televizorov. Leningrad, Lenizdat, 1959. 190 p. (MIRA 13:1)  
(Television--Handbooks, manuals, etc.)

KUSHNIR, Yu.M.; FETISOV, D.V.; RASPLETIN, K.K.; POCHTAREV, B.I.;  
SPEKTOR, F.U.; GUROVA, R.P.; TOKAREV, P.D.; OSIPOV, V.N.;  
PAVLOV, V.A.

Improving the scanning electron microscope -- X-ray local  
microanalyzer; some of its applications. Izv.AN SSSR.Ser.fiz.  
27 no.3:415-419 Mr '63. (MIRA 16:2)  
(X-ray spectroscopy)

KUSHNIR, Yu.M.; FETISOV, D.V.; DER-SHVARTS, G.V.; POCHTAREV, B.I.; TOKAREV, P.D.;  
RASPLETIN, K.K.; SPEKTOR, F.U.; GUROVA, R.P.; POSTNIKOV, Ye.B.;  
OSIPOV, V.N.; PAVLOV, V.A.; POGUDINA, M.V.

Combined scanning electron microscope and X-ray microanalyzer with  
magnetic electron optics. Izv. AN SSSR. Ser. fiz. 27 no.9:  
1166-1172 S '63. (MIRA 16:9)  
(Electron microscope) (X-ray spectroscopy)

KUSHNIR, Yu.M.; FETISOV, D.V.; DER-SHVARTS, G.V.; POCHTAREV, B.I.; TOKAREV, P.D.;  
RASPLETIN, K.K.; GUROVA, R.P.; POSTNIKOV, Ye.B.

The REMP-1 scanning-type electronic microprobe instrument. Zav.lab. 30  
no.12:1510-1512 '64. (MIRA 18:1)

L 36554-66 EWT(1)

ACC NR: AP6015760

(A, N)

SOURCE CODE: UR/0048/66/030/005/0764/0765

AUTHOR: Kabanov, A. N.; Fetisov, D. V.; Tokarev, P. D.; Glushkova, E. D.; Kushnir, Yu. M.

ORG: none

TITLE: The MESEM-A-40 electrostatic electron microscope energy analyzer /Report, Fifth All-Union Conference on Electron Microscopy held in Sumy 6-8 July 1965/

SOURCE: AN SSSR. Izvestiya, Seriya fizicheskaya, v. 30, no. 5, 1966, 764-765

TOPIC TAGS: electron microscope, electron diffraction, electron scattering, inelastic scattering, electron energy

ABSTRACT: A type MESEM-40 electrostatic electron microscope, described elsewhere by V.I.Milyutin, D.V.Fetisov, K.K.Raspletin, F.U.Spektor, and B.I.Pochtarev (Izv. AN SSSR. Ser. fiz., 23, 454 (1959)), has been modified for use as an electrostatic energy analyzer for investigation of inelastic scattering of electrons. The modified instrument can also be used as an electron diffraction camera. Two auxiliary sections were fabricated to replace the section of the MESEM-40 microscope that contains the objective, intermediate, and projection lenses. One auxiliary section is inclined and contains the condensing lens for work with electron reflection. The other auxiliary section contains the specimen holder, the mechanism for controlling the motion of the

Card 1/2



L 36554-66

ACC NR: AP6015760

slit, the objective, and the analyzer lens. The accelerating potential can be continuously varied; its maximum value is 40 kV. The microscope can produce light field, dark field, and stereoscopic images at magnifications from 3000 to 11 000 and with a resolution of 40-50 A. The energy resolution of the analyzer is 0.5-0.7 eV. The electron microscope images, electron diffraction patterns, and electron energy spectra are recorded photographically. Orig. art. has: 1 figure.

SUB CODE: 20/

SUM DATE: 00/

ORIG REF: 002/

OTH REF: 003

Card 2/2 *MLP*

TOKAREV. P.G.

Production of heat-resistant glass pipes has been mastered. Steklo  
ker. 18 no. 5:32-34, My '61. (MIRA 14:5)  
(Konstantinovka--Pipe, Glass)

TOKAREV, P.I.

Mathematical Reviews  
Vol. 14 No. 11  
December, 1953  
Geometry

*Handwritten signature/initials*

*Handwritten checkmark* Tokarev, P.I. Geometric theory of the second variation in the variational problem of Lagrange. Trudy Sem. Vektor. Tenzor. Analizu 9, 431-455 (1952). (Russian)  
The theory of the variational problems of Lagrange [see Blum, Amer. J. Math. 52, 673-744 (1930)] is presented in geometrical form according to the theory of V. V. Vagner [see the paper reviewed above]. The second variations and the equations corresponding to those of Jacobi in the ordinary variation problem are considered in particular. The essential point of Vagner's method is to introduce a local density (for the simple problem) or a local vector (for the general problem) along admissible curves and to apply his theory of local hyperstrip fields and of composite manifolds [same Trudy 8, 11-72, 197-272 (1950); these Rev. 13, 281, 778]. In the first of the two parts of this paper, the simple problem of Lagrange, there is defined a given local curve field in  $X$ :  $x^a = f^a(p, q)$ , named the indicatrix of the problem,  $q$  being a density. Then admissible curves are integrals of the differential equations  $m_a^{(-1)} \dot{x}^a = 0$ ,  $n_a^{(-2)} \dot{x}^a = 0$ , where  $m_a^{(-1)}$  and  $n_a^{(-2)}$  represent respectively the components of the affine

*Handwritten:* math  
③  
2

binormal and the affine principal normal of the local curve of the indicatrix in a local centro-affine space  $E_n$  associated with the point  $\xi^a$  in  $X_n$ . By virtue of the local frame  $(l_a, m_a^{(-1)}, n_a^{(-2)})$ , the first and second variations of the arc length  $s = \int \sqrt{l_a(\xi^a, \eta^a) \xi^a d\xi^a}$  and the corresponding equations of Jacobi are expressed in geometrical, invariant forms. The same method is applied also to the Euler-Lagrange multiple rule and similar results are obtained. When the local curve of the indicatrix is a central plane curve, the results have somewhat different forms. In the second part the method is generalized in order to discuss the general problem of Lagrange, by introducing the local  $(m-1)$ -dimensional hyperstrip field:  $x^\alpha = l^\alpha(\xi^a, \eta^a)$ ,  $y_\alpha = l_\alpha(\xi^a, \eta^a)$  ( $\alpha, \lambda = 1, \dots, n$ ;  $a = 1, \dots, m-1$ ) in  $X_n$ . The system of Pfaff equations  $l_a \xi^a = 0$ ,  $n_a \eta^a = 0$  ( $p = m+1, \dots, n$ ) defines the basic measurable curves in  $X_n$  whose arc lengths are given by  $S = \int \sqrt{l_a(\xi^a, \eta^a) \xi^a d\xi^a}$ . The vectors  $n^p$  are defined by  $l_a n^a = 0$ ,  $l_a n^a = 0$ ,  $n_a n^a = \delta_a^p$ , where the vectors  $n_p$  define  $(n-m)$ -directions, characterizing the hyperplanes of the hyperstrip, i.e.,  $l_a n^a = 0$ ,  $l_a n^a = 0$ . Then the first and second variations of the integral  $S$  and its equations of Jacobi are expressed in terms of the affine invariants, where again Vagner's theory of hyperstrips is applied. Their specific forms are too complicated to be described here.

A. Kawaguchi (Sapporo).

TOKAREV, P.I.

Geometric theory of the second variation for the variational Lagrange problem. Trudy Sem.po vekt.i tenz.anal. no.9:431-455 '55. (MIRA 8:8)  
(Calculus of variations)

TOKAREV, P. I.

"Geodesic Nets Not Determined by a Network Angle"

Trudy, t. 1. Transactions of the Mathematics and Mechanics Section, Kazakh SSR, Acad. Sci., Alma-Ata, Izd-vo AN Kazakhskoy SSR, 1958, 207pp.

TOKARIV, P.I.

Geodesic nets undetermined by the net angle. Trudy Sekt.mat.  
1 mekh. AN Kazakh. SSR 1:194-201 '58. (MIRA 11:12)  
(Geodesy)

TOKAREV, P.I.

Deep focal plane and relation between earthquakes and the  
relief of the Kuriles-Kamchatka zone. Biul. Vulk. sta. no.27:  
66-81 '58. (MIRA 11:10)  
(Kurile Islands--Earthquakes) (Kamchatka--Earthquakes)



TOKAREV, P.I.

Relationship between the volcanic and seismic activity in the  
Kuril-Kamchatka zone. Trudy Lab.vulk. no.17:156-182 '69.

(MIRA 13:5)

(Soviet Far East--Volcanoes)

(Soviet Far East--Seismic waves)

S/169/62/000/001/007/083  
D228/D302

AUTHOR: Tokarev, P. I.

TITLE: The Kozyrevsk seismic station

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 1, 1962, 13, abstract 1A115 (Byul. Vulkanol. st. AN SSSR, no. 29, 1960, 54-55)

TEXT: A seismic station was organized in 1958 near the settlement of Kozyrevsk to study volcanic earthquakes in the area of the Klyuchevskaya group of volcanoes. The station's substratum is: An upper layer (1.5 m) of ashy deposits, then come dense clayey glacial deposits down to a depth of 6 m, below which lies a dense lava flow. The station is provided with seismographs of the regional type of D. A. Kharin's system for three components; the rate of rotation of the recording drum is 60 mm/sec. The observations of the station will be published in the Byulleten Vulkanologicheskoy stantsii. [Abstractor's note: Complete translation.]

Card 1/1

3.9300

39078  
S/169/62/000/006/011/093  
D228/D304

AUTHOR: Tokarev, P. I.

TITLE: Energy estimation of the force of earthquakes of the  
Bezemyanny volcano

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 6, 1962, 10, ab-  
stract 6A60 (Byul. Vulkanol. st. AN SSSR, no. 31,  
1961, 38-45)

TEXT: A method is proposed for estimating the energy of earth-  
quakes near the Bezemyanny volcano from the flow of seismic en-  
ergy  $E_k$ :

$$E_k = \rho c \int_0^t \dot{x}^2 dt \quad (1)$$

— where  $\rho$  is the rock density,  $c$  is the velocity of elastic waves,  
Card 1/3

Energy estimation of ...

39078  
S/169/62/000/006/011/093  
D228/D304

t is the time, and x is the displacement. To simplify the calculations, it is assumed that

$$x = Ae^{-\varepsilon(t-t_0)} \cdot \sin \omega(t - t_0) \quad \checkmark$$

where A is the maximum displacement amplitude for all components,  $t_0$  is the wave arrival time,  $\varepsilon = 0.0204 \text{ sec}^{-1}$  (the mean for  $80 \leq t - t_0 \leq 150 \text{ sec}$ , with an average relative error of 6.5% according to 50 earthquakes with  $A = [1 - 465] \mu$ ),  $\omega = 2\pi/T$ , and T is the period of oscillations. Integrating in (1) to  $t = \infty$  with allowance for  $\varepsilon \ll \omega$  gives

$$E_k = \frac{\pi^2 \rho c}{\varepsilon} \cdot \left(\frac{A}{T}\right)^2 \quad (2)$$

Card 2/3

Energy estimation of ...

S/169/62/000/006/011/093  
D228/D304

In the case under investigation the surface wave energy constitutes 96.8% of the seismic wave energy. Therefore the (estimated) value of the group velocity of Love waves --  $c_Q = 1.87$  km/sec -- is taken for  $c$ . The method's relative error does not exceed 10% (without taking into account the uncertainty of the magnitude of  $\rho c/E$ ), which follows from the comparison of the results of calculations of  $E_k$  for 9 earthquakes according to formulas (1) and (2), when  $E_k$  from (2) exceeds  $E_k$  from (1) by an average of 3.9%. This appears to be related to the fact that (2) takes the earthquake "tail" into account. [Abstracter's note: Complete translation.]

X

Card 3/3

ACC NR: AT6036298

SOURCE CODE: UR/3233/66/000/041/0015/0019

AUTHOR: Tokarev, P. I.

ORG: none

TITLE: Seismicity of the region of the northern Kamchatka volcanoes in 1964

SOURCE: AN SSSR. Sibirskoye otdeleniye. Institut vulkanologii. Byulleten' vulkanologicheskikh stantsiy, no. 41, 1966, 15-19

TOPIC TAGS: earthquake, seismicity, seismologic station, upper mantle, volcano/  
Kamchatka

ABSTRACT: The present article analyzes the seismicity of the region of the northern Kamchatka volcanoes during 1964. Only tectonic and volcanic earthquakes not directly associated with eruptions are investigated. A table of earthquakes recorded in 1964 is given which shows date, origin time, coordinates of the focus, and log E of the earthquake (where E is the energy in joules). A map of epicenters shows two distinct epicentral zones: the Sredniy Range zone with 76 earthquakes and depths of 0-20 km, and the Kumroch Range and Khapitsa River zone with 20 earthquakes of which 10 have focal depths exceeding 70 km. The strongest earthquakes recorded were shocks with log E = 12. A great increase in seismicity at focal depths of 80-270 km is noted in the area. It is attributed to the eruption of Sheveluch

Card 1/2

ACC NR: AT6036298

Volcano on 12 November 1964 confirming the author's earlier deductions that seismicity due to earthquakes at depths of 70—200 km and volcanic activity of the Kurile-Kamchatka region are the result of tectonic processes in the upper mantle. Orig. art. has: 1 table and 1 figure.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 002/ ATD PRESS: 5108

Card 2/2

ACC NR: AM6022705

Monograph

UR

Tokarev, Pavel Ivanovich

Eruptions and seismic regime of volcanoes in the Klyuchevskiy group, 1949-1963 (Izverzheniya i seysmicheskiy rezhim vulkanov Klyuchevskoy gruppy, 1949-1963 gg) Moscow, Izd-vo "Nauka", 1966. 116 p. illus., biblio., tables. 700 copies printed.

TOPIC TAGS: earthquake, seismology, volcanic activity, seismologic station, geodynamics / Kamchatka peninsula

PURPOSE AND COVERAGE: This booklet, based on seismic data collected at the Kamchatka Volcanological Station and the Klyuchi Seismic Station by the author, B. I. Piyp, and G. S. Gorshkov, investigates earthquakes associated with the Bezymyannyy and Klyuchevskiy volcanoes. An attempt is made to determine patterns of behavior between the seismic activity of the volcanoes and eruptions. Characteristic seismic data signaling the onset of an eruption serve as the basis of a system of forecasting explosive eruptions. In addition to the existing stations (Klyuchi, Kozyrevsk, Apakhonichi) in the region, the author calls for the establishment of at least one more station near

Card 1/3

UDC: 551.21+624.042.7



ACC NR: AM6022705

Bylinkina Crater in order to ensure the precise determination of the foci of volcanic-generated earthquakes. The booklet has about 100 references.

TABLE OF CONTENTS:

Introduction -- 5

Ch. 1. Research on the seismic activity of the volcanoes in the Klyuchevskiy group in the period 1949-1956 -- 7

Ch. 2. Activity of the volcanoes -- 12

Ch. 3. Apparatus and methods of processing materials -- 29

Ch. 4. Seismic activity of the northern volcanic group on Kamchatka -- 43

Ch. 5. Seismic activity of the Bezmyanny volcano -- 51

Ch. 6. Relationship between the seismic activity and the eruptions of the Bezmyanny volcano -- 64

Card 2/3

ACC NR: AM6022705

Ch. 7. Relationship between the seismic activity and the eruptions  
of the Klyuchevskiy volcano -- 84

Supplement -- 106

References -- 114

SUB CODE: 08/ SUBM DATE: 11Feb66/ ORIG REF: 073/ OTH REF: 021/

Card 3/3

KOMISSARUK, A.M. (Minsk); TOKAIEV, P.I. (Ural'sk)

Surfaces admitting of geodesic nets not determined by the  
net angle. Volzh. mat. shor. no.1:106-114 '63.  
(MIRA 19:1)

TOKAREV, P.I.

Recording of the explosions of the Klyuchevskiy Volcano in  
1962. Biol. vulk. sta. no. 37:52-59 '64. (MIRA 18:3)

TOKAREV, P.I.

Earthquake swarms of the Sheveluch Volcano in May 1964.  
Biu. vulk. sta. no.38:41-44 '64. (MIRA 18:3)

MARKHININ, Ye.K.; TOKAREV, P.I.; PUGACH, V.B.

Studying the state of the volcanoes of the Klyuchevskoy group  
and the Sheveluch Volcano in 1961. *Biul.vulk.sta.* no.35:3-8 '64.  
(MIRA 17:10)

MARKHININ, Ye.K.; SIRIN, A.N.; TIMERBAYEVA, K.M.; TOKAREV, P.I.;  
MAKHORKIN, I.F., red.

[Volcanoes of Kamchatka and the Kurile Islands] Vulkany  
Kamchatki i Kuril'skikh ostrovov. Petropavlovsk-  
Kamchatskii, Knizhnaia red. "Kamchatskaia pravda," 1959. 85 p.  
(MIRA 17:4)

TOKAREV, P.I.

Some problems in the geometrical theory of the second variation  
in Lagrange's variational problem. Trudy Sekt. mat. i mekh.  
AN Kazakh. SSR 2:49-51 '63. (MIRA 16:10)



MARKHININ, Ye.K.; TOKAREV, P.I.; PUGACH, V.B.; DUBIK, Yu.M.

Eruption of the Bezmyanny Volcano in the spring of 1961.  
Bul. Vulk. sta. no.34:12-35 '63. (MIRA 16:10)

TOKAREV, P.I.

Seismic observations at the Kamchatka Volcanological  
Station in 1958. Biol.Vulk.sta. no.33:20-43 '62.

(Kamchatka--~~Seismology~~---Observations) (MIRA 15:12)

TOKAREV, P. I.

Rectilinear Networks Non-determined by the Net Angle on a LOBACHEVSKIY  
Plans p.13

TRANSACTIONS OF THE 2ND REPUBLICAN CONFERENCE ON MATHEMATICS AND MECHANICS  
(TRUDY VIUSROY RESPUBLIKANSKOY KONFERENTSIY PO MATEMATIKE I MEKHANIKE), 180  
pages, published by the Publishing House of the PC USSR, ALMA-ATA, USSR, 1962

TOKAREV, P.I.; BORISOVA, V.N.

Eruption of the Bezmyanny Volcano in April 1960. Biul.Vulk.sta.  
no.31:23-27 '61. (MIRA 15:2)

(Bezmyanny Volcano)